

REPLACEMENT CLAIMSSUB  
B1 >

1. (amended) A method of forming an opening in an insulative layer formed over a substrate in a semiconductor device, comprising etching said insulative layer with an etching composition consisting essentially of ammonia and at least one fluorocarbon so as to form said opening.

SUB  
C2 >

2. (amended) The method of claim 1, wherein said opening is a self-aligned contact opening.

SUB  
C4 >

8. (amended) The method of claim 1, wherein said etching is performed through a patterned photoresist mask.

SUB  
C6 >

21. (amended) The method of claim 20, wherein said fluorocarbon is flowed into a reaction chamber at a flow rate of about 18 sccm.

SUB  
B3 >

36. (amended) A process for forming an opening in an insulative layer formed over a substrate in a semiconductor device, comprising:

forming a pair of adjacent gate stacks in said insulative layer;

forming side wall spacers on side walls of said adjacent gate stacks;

forming a patterned photoresist mask layer over said insulative layer; and

etching an opening in said insulative layer through an aperture in said patterned resist layer, wherein said opening is etched through to said substrate using a combination of ammonia and at least one fluorocarbon, wherein said fluorocarbon is selected from the group consisting of  $C_4F_8$ ,  $C_4F_6$ ,  $C_5F_8$ ,  $CF_4$ ,  $C_2F_6$ ,  $C_3F_8$ .

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C10 >

37. (amended) The method of claim 36, wherein said opening is a self-aligned contact opening in said insulative layer.

SUB B4

43. (amended) The process of claim 42, wherein said contact opening is formed between said side wall spacers on said pair of adjacent gate stacks.

SUB B5

64. (amended) A method of forming a conductive plug inside a contact opening in an insulative layer between adjacent gate stacks formed over a substrate in a semiconductor device, comprising:

contacting said insulative layer with a plasma etchant mixture consisting essentially of ammonia and at least one fluorocarbon at a temperature within the range of about -50 to about 80 degrees Celsius so as to form a self-aligned contact opening in said insulative layer between said gate stacks without an etch stop, wherein said contacting further forms a protective layer over opposed side wall spacers which have been formed over said gate stacks;

depositing a conductive plug inside said opening such that said conductive plug is separated from said side wall spacers by said protective layer.